Contract theory EC307.01
Syllabus Fall 1999

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In the microeconomic theory course, you learnt about supply and demand, market-clearing prices, market efficiency, welfare, and more. This course will considerably expand your analytical toolkit, by exploring the implications of informational asymmetries on economic outcomes. The concepts covered in the course will enable you to understand certain market inefficiencies and aspects of the organizational design of economic activities, which may be traced to informational asymmetries. As in the microeconomics course, ideas will be developed using models (verbal, graphical, and mathematical).

Texts
The required textbook is The Economics of Information, by Ian Molho (Blackwell Publishers, 1997). Additional readings will be distributed during the course. Also, be aware that some topics will only be covered in the lectures (handouts will be available for these topics). Finally, some of the problem sets will be based on articles from The Economist, a weekly news magazine (available at the O'Neill library, call number HG11.E2).

Prerequisites
Microeconomic theory (EC201) and calculus.

Exams, problem sets and grading
There will be one mid-term exam in class (the date will be announced at least three weeks in advance), and one final exam (scheduled on December 13). The mid-term will count for 25% of the final grade, and the final for 40%. The remaining 35% will be determined by your grades on four problem sets. Although you may discuss problem sets with others, the work you hand in should be yours alone. Solutions that are too similar will get a low grade. Late problem sets will not be accepted, and no make-up exams will be given.

Office hours
Wednesdays 2-4, and by appointment (please come and see me right after class if you want to schedule an appointment).

Outline (note: this outline is preliminary; an updated outline with final reading requirements will be distributed later this semester)

I. Introduction
- A. Review of microeconomic theory you should know
- B. Discussion of major assumptions and their implications
- C. Introducing informational asymmetries — Ch. 1

II. Adverse selection
- A. The market for lemons — Ch. 2
- B. Applications: credit markets, insurance — Ch. 3, p. 40-41
- C. Further issues:
  - a. Reputation — Ch. 3, p. 42
  - b. Prices as signals of product quality — Ch. 3, p. 43

III. Extracting information (1): Signaling
- A. A model of signaling — Ch. 5
- B. Applications: job market, advertising, dividend policy

IV. Extracting information (2): Screening
- A. A model of screening — Ch. 6
- B. Applications: insurance, credit markets

V. Adverse selection: experimental and empirical evidence — Ch. 4 and 8

VI. Extracting information (3): Mechanism design
- A. The revelation principle — Ch. 13
- B. Applications: auction design, price discrimination — Ch. 14
- C. Further issues: renegotation, collusion
- D. Application: regulation

VII. Moral hazard
- A. The shareholders-manager relation — Ch. 9
- B. The principal-agent model — Ch. 10
- C. Moral hazard in insurance